

# **\*\*ATTENTION\*\***

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## Habitat management for

# MULE DEER



### In the State of Washington

The mule deer, *Odocoileus hemionus hemionus* (sometimes listed as *Dama hemionus hemionus*) inhabits open wooded areas, rangelands, broken and rolling sagebrush lands, and ragged canyons and mountains of eastern Washington. This subspecies is known as the Rocky-Mountain mule deer.

The mule deer has large mule-like ears that give it its common name. The tip of its tail is black and the surrounding area is white, making it easy to spot. Adult bucks measure 5 to 6 feet in length, 3 1/2 feet high at the shoulder, and weigh 90 to 300 pounds dressed weight (averaging about 135 to 150 pounds). Does measure about 4 feet in length and weigh 70 to 175 pounds dressed weight (averaging 100 pounds).

The bucks grow a new set of antlers each year, shedding them in mid-winter. The large "trophy" antlers may reach or exceed 30 inches in both length and spread, with four or more points on each antler. A yearling buck's antlers normally have two points on a side, but spikes are also common.

The life span of a mule deer is about seven years. Mating takes place in late fall (mostly November). Does give birth to one or two (rarely three) fawns in late spring (May and June, after a gestation period of about 210 days). A doe usually bears its first fawn at age two.

The mule deer is an important big-game species that provides sport-hunting, recreational observation, tasty food, and economic benefits from thousands of hunters who visit the hunting areas. As with any species of wildlife, the best huntable populations of mule deer occur where its habitat is best.

## HABITAT NEEDS

Habitat and its management include preservation and development of important foods, cover, and water. In addition, deer populations must be controlled by adequate hunting -- to avoid over-populations that:

- (1) Seriously damage good habitat, and thus reduce its capacity to support deer; and
- (2) Result in poor physical condition of the deer, followed by winter losses and low rates of reproduction.

## Food

Mule deer eat a wide variety of forage foods -- the leaves, needles, succulent stems, fruits, and acorns -- from trees, shrubs, forbs, domestic crops, and grasses. It is useful to classify the "important" deer foods into two groups, according to each food's quality to attract deer and sustain good physical condition. Proper classification reflects seasonal palatability and nutritional contents of the plant-parts eaten. *Choice foods* attract deer and maintain vigorous health that keeps them in good flesh and reproductive condition. *Fair foods* are somehow deficient, but usually are sufficient to maintain life through crucial periods of the year. From careful analyses of extensive food studies, SCS Biologists classify plants in the State of Washington as follows:

### Choice Foods

*Grasses and grain crops.* The green forage of bluegrass, brome, cheatgrass, needlegrass and other grasses, oats, rye, and wheat are attractive wherever available in late fall, winter, and early spring. The grain from barley, corn, oats, rye, sorghum, and wheat are choice foods whenever they are available.

*The tender leaves and stems of forbs* include alfalfa, balsamroot, bluebells, burnet, clovers, dandelion, fritillary, hawkweed, wild lettuce, garden peas, sweetclover, and trefoil.

*The fresh-grown leaves of shrubs* include bearberry, bitterbrush, shrubby eriogonums, ceanothus (redstem and snowbrush), sand cherry, chokecherry, elder, mountain-ash, Douglas rabbitbrush, stiff sagebrush, serviceberry, and willow.

*Tree foods* are the leaves and fruits of apple and crabapple.

Some species of mushrooms and lichens are choice foods.

### Fair Foods

*Green growth of grasses* include fescue (Idaho and tall), needle-and-thread, and wheatgrasses.

*Fresh growth of forbs* include aster, biscuitroot, sticky geranium, and wild sunflower.

*Tender leaves, semi-woody stems, and fruits or berries of shrubs and trees* include aspen, cherry, cottonwood, currant, dogwood, Douglas-fir, huckleberry, juniper, maple, mockorange, ninebark, Oregongrape, plum, raspberry, rose, big sagebrush, snowberry, smooth sumac, and thimbleberry.

### Cover

Mule deer find "cover" in open woodlands, brushy areas, deep draws, and rock-rims for shelter against sun and storms. Deer often "hide" in cover, but usually "run" to escape hunters and predatory mammals. They feed in open fields at night; and along field borders near woodland or brush cover in early evenings and mornings.

### Water and Salt

Deer frequently drink water from ponds, springs, and streams; but also satisfy their moisture needs from snow and succulent foods. Salt sometimes attracts deer, and may be a beneficial nutrient. Natural "salt licks", and block salt placed where deer are wanted, serve the purpose.

### MANAGEMENT SUGGESTIONS

Good deer-management requires two essential considerations: (1) The quality of the vegetative habitat, and (2) adequate annual-harvest of the bucks, does, and fawns, to avoid overpopulations that are likely to impair its habitat. The landowner has full responsibility to maintain or improve the habitat on his lands; and a mutual responsibility with the Washington Department of Game to harvest enough deer each year to protect his habitat and a healthy vigor of the herd, by intelligently-planned hunting.

*The food-supply and cover needs are provided, if at all, by vegetation, its management and use. This habitat may be excellent, good, fair, or poor. Where open woodland and brushy areas exist adequately, the quality of the habitat is governed primarily by the important plants that feed deer well; and, therefore, the landowner who wants deer and deer-hunting should rely on the various plants that are named in the foregoing section about Foods.*

*Cultivated lands*, where available near cover, offer prime opportunities to grow the choicest foods that attract, support, and produce good-to-excellent deer populations.

*Range management* for deer should consider dual- and competitive-use of important forages (both choice and fair) by livestock. Deer do not like mature (dry) grasses, so cattle grazing to utilize most of the grass is beneficial. Sheep and goats, however, are much more competitive with deer. To recognize "proper use", "over-use", and "range condition", an experienced range or soil conservationist can be helpful.

*Woodland habitat* in mountainous mule deer range usually accumulates deep snow in the late fall, and the deer must move into foothills and lower rangelands for winter food. This is a "critical" time for deer, and the season when death losses are most common.

*Fencing.* To permit deer easy-access to fenced fields, pastures, and range, three strands of barbed wire should be spaced 16, 30, and 42 inches above ground. Deer may go under, through, or over. To exclude deer, a woven-wire fence, about 79 inches high, is stapled to posts spaced 12 feet apart. Treated lodgepole posts, 11-feet long, set 2 1/2 feet in the ground are good. Cost of materials and labor may exceed \$1500 per mile. To protect an individual tree, a 12-foot length of 2 x 2-inch mesh wire, 72-inches high is placed as a cylinder around the tree.

*Hunting.* Hunting seasons are regulated by the Washington Department of Game. One of the conservation and management objectives is to harvest an adequate number of mature bucks, spike bucks, does, and fawns to avoid over-use of the deer foods, assure good physical condition of the deer, and avoid low rates of annual fawn production. About half of the bucks harvested are two-year olds.

The Soil Conservation Service and Soil and Water Conservation Districts offer competent technical guidance relative to soil, water, plant and range management to many land owners (private and public). The Washington Department of Game is responsible for setting the hunting seasons, managing lands under their supervision, and related informational assistance throughout the state.